Advanced Methods for Usability Testing

Case Study
## Summary

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1 Executive Summary

Quantitative analysis of user experience is difficult to obtain. A workflow was established to allow quantitative analysis of user experience including an evaluation to obtain statistic significant results. These results were published.

2 Problem Statement

The Eyetracking Technology for usability testing is well established and used widely. (Bente, Eschenburg, & Fürtjes, 2007) However, benchmarking experiments comparing different websites or other sources are less common. Quantitative analysis of user experience is difficult to obtain. (Tullis, 2009)

3 Alternatives

Usability studies are mainly qualitative studies using 5 to 12 subjects as test persons. (Nielsen Norman Group, 2009) Insights gained by these observations are then published in reports and presented to the client, including suggestions for the improvement of the website or other source. However, statistic significant results usually are not available due to the limited amount of subjects and the time and effort necessary to perform the experiments.
4 Conclusion

We used the Eyetracker technology of SMI, including the software Experiment Center and Begaze to acquire the data. We used the software QSR NVivo Project 9 to analyze the data. Results were then exported into IBM SPSS Statistics Version 19 to carry out the final evaluations.
Abbildung 2 Eyetracker Setting
Abbildung 3 Screenshot QSR NVivo Project 9, used to analyze the data

Abbildung 4 Screenshot IBM SPSS Statistics Version 19, used to carry out the final evaluations
5 Implementation

A workflow was established to allow quantitative analysis of user experience including an evaluation to obtain statistically significant results. These results were published. (Emmert, Sander, Maryschok, Esslinger, & Schöffski, 2010)

Abbildung 5 Screenshot from (Emmert et al., 2010)
Reference List


